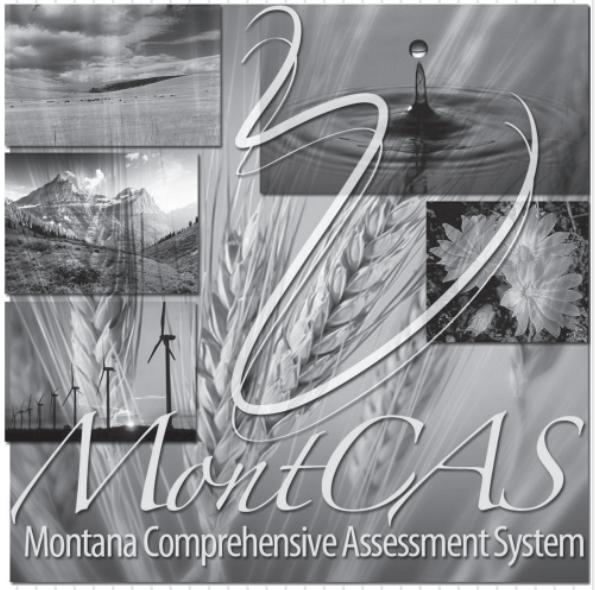
Montana Comprehensive Assessment System (MontCAS CRT)

Grade 6
Common Released Items
Spring 2010



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Reading Directions for Spring CRT

This Reading test contains three test sessions. Mark or write your answers in the Answer Booklet. Use a pencil to mark or write your answers.

This test includes two types of questions: multiple-choice and constructed-response questions.

For the multiple-choice questions, you will be given four answer choices—A, B, C, and D. You are to choose the correct answer from the four choices. Each question has only one answer. After you have chosen the correct answer to a question, find the question number in your Answer Booklet and completely fill in the circle for the answer you chose. Be sure the question number in the Answer Booklet matches the question number in the Test Booklet. The example below shows how to completely fill in the circle.

CORRECT MARK	INCORRECT MARKS
●	❍ ⊙ ◉ ⊘

If you decide to change your answer to a question, erase the wrong mark completely before filling in the circle of the new answer. Be sure you have only one answer marked for each question. **If two circles are bubbled in for the same question, that question will be scored as incorrect.**

If you are having difficulty answering a question, skip the question and come back to it later. Make sure you skip the circle for the question in your Answer Booklet.

For the other types of questions in the Test Booklet, you will be asked to write your answers in the box provided. Read the question carefully. If a question asks you to explain your answer or to show your work, be sure to do so.

You may make notes or use highlighters in your Test Booklet, but you must bubble or write your final answers in your Answer Booklet. **Do not make any stray or unnecessary marks in your Answer Booklet.**

Let's work through a sample question together to be sure you understand the directions.

Sample Question

1. What is the capital of Montana?
   A. Browning
   B. Glendive
   C. Helena
   D. Missoula

Reading

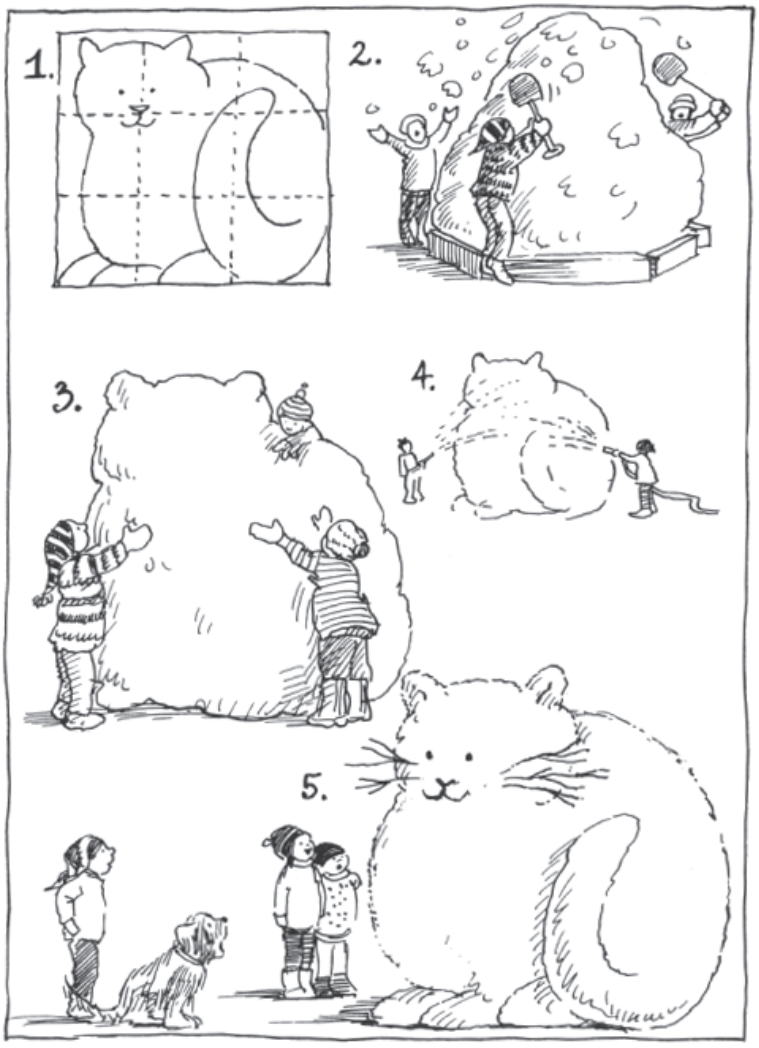
Read this passage about a creative winter activity. Then answer the questions that follow.

Making a Snow Sculpture

Harriet Webster

Tired of making snowmen? Eager for a new challenge? Then try a snow sculpture. Here's a project that requires few materials but lots of imagination and energy. Any number of friends can be part of the fun. Just be certain to plan your project according to the number of helpers on hand.

Timing is crucial. First, choose a day with subfreezing temperatures and plenty of snow on the ground. Second, it is important that several additional days of subfreezing conditions are anticipated.



Before digging into the snow, do some planning. Decide what shape you want to sculpt. Try to choose a subject without too much detail. (Sculpting a recognizable person is very difficult.) Then rule a piece of blank paper into one-inch squares. Letting one inch on paper equal one foot, make a drawing of your sculpture on this grid. As a general rule, a four-person team working very hard can complete in one day the snow mound needed for a six-foot high by six-foot wide snow sculpture.

3

Begin your outdoor work by making a large mound of snow, using old boards to support the sides. Soak the mound with water and then stomp on it.

Shovel on more snow, soak, and stomp again. Repeat this process until you have a block of packed snow at least a foot taller and wider than your planned sculpture. For large projects, this step can take more than one day.

Once you have completed the mound, use your hands to mold the snow into a rough approximation of your proposed sculpture. Let the rough form stand overnight. The next morning, when it is frozen solid, use chisels to carve the details.

When you have completed the form to your satisfaction, spray your sculpture with a light stream of water. Be certain the temperature is at least five degrees below freezing before beginning this step. Use a plastic spray-pump bottle or a garden hose hooked up to an indoor tap and routed out the window. (Outdoor faucets have probably been turned off for the winter.) Once sprayed, the sculpture will take on a glossy appearance.

Students at Dartmouth College in Hanover, New Hampshire, have been sculpting snow since 1927. Some of the better-known creations included in their annual Winter Carnival have been a St. Bernard dog twenty feet high, a King Kong statue tall enough to peer into a second-story window, and a huge Mickey Mouse. A project like one of these requires about 80 people, 250 tons of snow, and 500 working hours to complete.

1. In paragraph 3, why is the sentence "(Sculpting a recognizable person is very difficult.)" in parentheses?

   A. It states a subtopic related to the main topic.
   B. It hints at important information coming next.
   C. It explains the suggestion in the previous sentence.
   D. It summarizes the directions given in the paragraph.

2. The **best** weather forecast for making a snow sculpture would be

   A. many days of rain turning to ice.
   B. several subfreezing days in a row.
   C. a storm with much snow and wind.
   D. a pattern of warm days and cold nights.

3. What is the **first** thing to be done after you have drawn a plan for your sculpture?

   A. Use a tool to carve details.
   B. Choose a subject to sculpt.
   C. Spray the snow with water.
   D. Shovel snow into a large pile.

4. Which step is **not** suggested when making a snow sculpture?

   A. drawing a rough design
   B. making a big snow pile
   C. planning fancy details
   D. packing down the snow

5. The illustrations show all steps of the project **except**

   A. carving the details.
   B. using the wooden support.
   C. coating the sculpture with water.
   D. molding the mound of snow.

6. What is the **most likely** reason the author includes the information in the last paragraph?

   A. to suggest a new project
   B. to give interesting examples
   C. to show how expensive the project is
   D. to tell the history of snow sculptures

7. Which sentence **best** states the main idea of the passage?

   A. "Here's a project that requires few materials but lots of imagination and energy."
   B. "Just be certain to plan your project according to the number of helpers on hand."
   C. "First, choose a day with subfreezing temperatures and plenty of snow on the ground."
   D. "Students at Dartmouth College in Hanover, New Hampshire, have been sculpting snow since 1927."

Read these poems about kites, and then answer the questions that follow.

If I Were a Kite

If I were a kite
I'd kneel,
stretch my skinny arms
out wide,
and wait for wind.

My yellow shirt would
fill up like a sail
and flap,
tugging my crisscrossed
wooden bones and me
toward seas of cloud.

My rippling paper skin
would rustle like applause
as I inhaled,
gulping one last gust
to swoop me giddy-quick
above the trees.

My red rag tail
would drift
toward everything green
to balance me

So all day
I could
loop and climb

loop and climb

and
soar

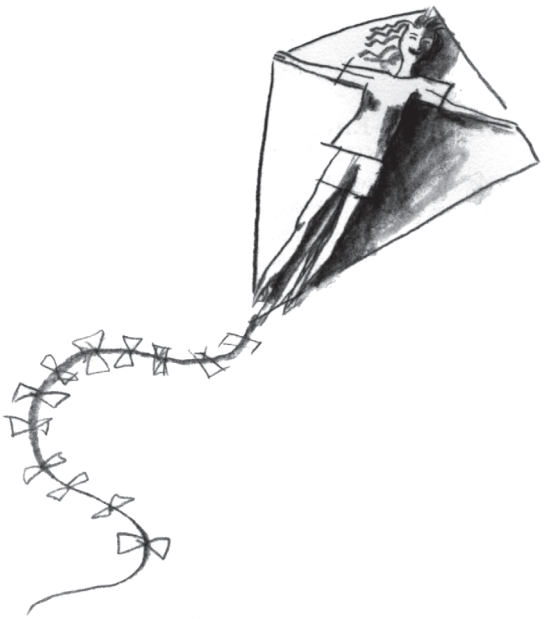
into pure sky.

—Jacqueline Sweeney

I'm Up Here

I'm up here.
You're down there.
And nothing in that space between us
But a mile of air.
Where I sail:
Clouds pass.
Where you run:
Green grass.
Where I float:
Birds sing.
One thin thing there is
That holds us close together:
Kite string.

—Karla Kuskin



8. In "If I Were a Kite," the line "to swoop me giddy-quick" **mainly** suggests a feeling of

   A. foolishness.
   B. hopefulness.
   C. mystery.
   D. pleasure.

9. In "If I Were a Kite," the line "loop and climb" is repeated **most likely** to show

   A. the number of kites the speaker sees.
   B. the movements the kite makes in the air.
   C. the back and forth motion of the kite's tail.
   D. the kite's repeated returns to the ground.

10. In "If I Were a Kite," the **main** comparison is between the kite and

    A. a ship at sea.
    B. trees in the wind.
    C. the speaker's voice.
    D. the speaker's body.

11. What is the **main** purpose of "If I Were a Kite"?

    A. to explain a real-life event
    B. to give a list of instructions
    C. to teach about a scientific fact
    D. to describe an imaginary scene

12. Read these lines from "I'm Up Here."

> Where I sail:
> Clouds pass.
> Where you run:
> Green grass.

These lines point out two things that are

A. far apart.
B. flying high.
C. getting lost.
D. the same.

13. Who is the speaker in "I'm Up Here"?

    A. a bird
    B. a cloud
    C. a kite
    D. a person

14. Which book would **most likely** have other poems like these?

    A. *Build Your Own Kite*
    B. *Kites in Rhythm and Rhyme*
    C. *George and the Flyaway Kite*
    D. *Ben Franklin and His First Kite*

Read this passage about a girl who moves to Utah from the seaside. Then answer the questions that follow.

Desert Sea Gulls

Kimberly Webb

When Mom and Dad announced we were moving, Dad said we were going "home." He meant out West, where Grandma and Grandpa raised him along with lots of chickens and cattle.

1 I'd heard bedtime stories all about his childhood. He used to catch toads in the ditch. But I'd rather find shells on the beach. He used to wear cowboy boots and build forts out of hay. I'd rather wear flippers and build sand cities.

"The desert is beautiful in its own way," Dad said. "And just wait till you see the Rocky Mountains!"

I tried to smile. But I knew mountains would only stand between me and the rosy sun rising over the ocean.

4 "We'll find new things to love," Mom promised. But I knew I'd never love anything as much as waking up to the sound of a sea gull's cry.

5 After five days of driving across <u>rolling</u> prairie, we see jagged mountaintops on the horizon.

"Almost home," Dad says. Mom grins at Ben and claps her hands. He shrieks his approval while I cover my ears.

On day six, we pull into Grandpa's dusty driveway. "Do you remember this place now, Marissa?" Dad asks.

I shake my head. We haven't visited since I was little. Dad has been busy with medical school for as long as I can remember, so mostly Grandpa came to our house for holidays.

I sigh. Now *this* is our house, until Mom and Dad can find a new one to buy.

"Welcome home!" Grandpa calls from the front porch. His wrinkly face smiles so big I almost don't notice that word again. He steers us inside to the kitchen and pours us each a glass of milk from a pitcher. I gulp it down as fast as I can. I know it isn't from a grocery store but
10 fresh from the smelly cow grazing in Grandpa's yard. Ben likes it, and soon milk is dripping down his chin. He toddles over to the sliding back door and presses his nose against the glass. "Moo!"

"That's right, Ben," Mom says. "That's a cow. And see over there? Those are sheep."

Ben laughs and stamps his feet. "Moo!"

I scowl. It's easy for a two-year-old to find new things to love.

"Let's get you folks settled," Grandpa says. "Marissa, why don't you take the attic bedroom? It was Aunt Cindy's—perfect for a girl like you."

I climb the creaky staircase and find pink wallpaper covering a vaulted ceiling. I carry only one box, the most important one: FAVORITE STUFF FROM HOME. I unfold my pink and blue beach towel and toss it over the back of a chair, as if I'll be using it tomorrow. I unpack my framed sand dollar and hang it next to the window. Then I unwrap my shell collection from its packing paper and place each shell on the window sill. It's strange to see reflections of shells in the glass next to the rundown barn outside.

The night before I go to school, Grandpa fixes us beef and potatoes for dinner. The greasy gravy doesn't help my knotted tummy untie itself, so before bed Mom brings me a heated flannel bag filled with dried corn kernels. The warmth of the corn bag and the harvest smell almost make me feel better.

"Do I *have* to start school this year?" I ask for the millionth time. "It's practically summer. The school year's almost over."

"Maybe you'll like school," Mom says, smoothing my hair. "Sleep tight, O.K.?"

Before I turn out the lamp, I pull my notebook out from under the bed. I've started a list of Old Things I Miss: the salt scent instead of farm stink, sea gulls instead of chickens, friends to play with instead of only Ben.

I flip the page over, where I've started another list: New Things I Love. It's still blank.

That night I dream of sea gulls calling, their shrieks rising and falling with the wind. They flap over the ocean, trailing the lobster boats.

I open my eyes and look up at Aunt Cindy's pink ceiling, dim in the early morning light. I'm awake, but I still hear sea gulls. I rub my eyes and sit up. I hear something else, too: the
22 chugging of farm machinery. I creep down the stairs onto the back porch and squint toward the pasture. Grandpa is driving his tractor, dragging something that churns up the dirt. A silver flapping cloud flutters around him.

23 *Sea gulls.*

They don't seem to mind that they don't belong here. Their gray wings and long beaks skim the freshly turned soil, as if they are more at home in the desert sky than over the waves.

"Reminds you of home, doesn't it?"

I almost jump out of my slippers. Dad leans in the doorway behind me, arms folded. He chuckles. "Look at them chase Grandpa for a snack."

I don't see any clams spitting out from under the tractor tires.

"Earthworms," Dad says. "Maybe beetles, too—whatever the plow digs up."

I'm afraid if I ask, the magic will disappear, and the birds will go back home. I gulp. "What are they doing here?"

"They live here," Dad says. "The sea gull is the state bird of Utah. More than 150 years
30 ago, sea gulls from the Great Salt Lake ate swarms of crickets that were devouring the crops of the first settlers. Their coming was like a miracle that saved the people from starvation."

I close my eyes and listen to the gulls who have lived here forever. This place doesn't feel like home. It definitely does not smell like home. But I feel a piece of home sneaking up on me anyway.

Before heading to the bus stop, I slip my notebook into my backpack. I have something new to put on the list. Maybe sea gulls aren't new, but desert gulls are new to me. I wonder if a sea *girl* can learn to be happy here, too.

Maybe someday Mom, Dad, Ben, and I will be watching the rosy sunrise over the ocean—or the mountains—and I'll hear a gull shriek. I'll say, "Reminds you of home, doesn't it?" And it won't matter which home I mean.

15. Why are Marissa and her family moving out West?

A. to help her grandparents on the farm
B. to return to where her father grew up
C. so her father can go to medical school
D. so the children can go to a new school

16. What is Marissa's **main** problem in paragraphs 1 through 4?

A. She does not like the same things as her father.
B. She misses visiting her grandparents.
C. She is afraid of driving in the mountains.
D. She does not want to leave the ocean.

17. In paragraph 5, by describing the prairie as rolling, the author means the land has

A. flat fields.
B. gentle hills.
C. steep cliffs.
D. tall mountains.

18. In paragraph 10, the word toddles relates to the way Ben

A. laughs.
B. plays.
C. speaks.
D. walks.

19. In paragraph 22, the phrase "silver flapping cloud" describes

A. a flock of sea gulls.
B. a swarm of crickets.
C. soil blowing in the wind.
D. waves breaking on shore.

20. In paragraph 23, why do the words "*Sea gulls*" stand alone and in *italic* type?

A. to highlight Marissa's surprise
B. to show that there were few sea gulls
C. to imitate the appearance of the sea gulls
D. to imitate Marissa's way of speaking

21. Which phrase is the **best** replacement for the word <u>devouring</u> in paragraph 30?

A. gobbling up
B. nibbling on
C. pushing down
D. taking away

22. Which sentence best expresses Marissa's **main** problem in the passage?

A. "We haven't visited since I was little."
B. "Do I *have* to start school this year?"
C. "Maybe sea gulls aren't new, but desert gulls are new to me."
D. "I wonder if a sea *girl* can learn to be happy here, too."

23. Compared with Marissa, Ben is more

A. enthusiastic.
B. nervous.
C. sentimental.
D. uncertain.

24. Throughout the passage, Marissa's parents react to her homesickness with

A. fear and confusion.
B. jokes and humor.
C. kindness and patience.
D. sadness and frustration.

25. Which source would be the **best** to find out how far Marissa's family traveled to get from the coast to Utah?

A. an atlas of the United States
B. a road map of the state of Utah
C. trail maps of the Rocky Mountains
D. a historic map of the Great Salt Lake

26. Which person would **most likely** feel a personal connection to the message in this passage?

A. someone who is researching sea gulls
B. someone who is visiting grandparents
C. someone who has recently moved
D. someone who wants to be a farmer

27. Describe how Marissa's feelings toward her new home change throughout the passage. Use information from the passage to support your answer.

Scoring Guide

Score	Description
4	Response provides a thorough description of how Marissa's feelings toward her new home change in the passage. Explanation includes specific, relevant information from the passage.
3	Response provides a description of how Marissa's feelings toward her new home change in the passage. Explanation includes supporting information from the passage, but lacks specificity, relevance, and/or development.
2	Response provides a partial description of how Marissa's feelings toward her new home change in the passage. Explanation includes limited information from the passage and/or is partially correct.
1	Response makes a vague or minimal statement of how Marissa's feelings toward her new home change in the passage.
0	Response is totally incorrect or irrelevant.
Blank	No response.

Scoring Notes

A thorough response will include a description of how Marissa's feelings toward her new home change in the passage. Information to support this idea may include, but is not limited to, the following:

- At first she is unhappy, cannot smile, and interprets grand mountains as obstacles.
- Her unhappiness is magnified by her younger brother's excitement. Covers her ears when he "shrieks his approval."
- She sighs and scowls.
- The box labeled "FAVORITE STUFF FROM HOME" is evidence of her hanging onto that memory. Places familiar objects in her room to give her comfort.
- She is nervous about going to school. Her tummy is "knotted."
- She has not found any "new things to love." Dreams of seagulls.
- The first change happens when she hears sea gulls the next morning. This is surprising and feels like "magic."
- Once she learns the gulls live there her stubbornness cracks a bit and she feels "a piece of home sneaking up" on her.
- She wonders if she can learn to be happy in Utah.
- The conclusion shows her hope/optimism that this place, too, can eventually feel like "home."

Example of Score Point 4

Marissa's feelings change toward her new home throughout the passage because, at first she is not liking the idea of moving. She would rather be at the beach finding shells and wearing flipper and building sand cities than catching toads, wearing cowboy boots, and building hayforts. When she gets there she is annoyed with her brother for settling so fast. When she wakes up she hears the machinery going. She goes to look and sees a flock of seagulls. She closes her eyes and listens and feels a piece of home sneaking into her. She thinks maybe a sea girl can learn to be happy here, too. That is how Marissa's feelings change toward her new home.

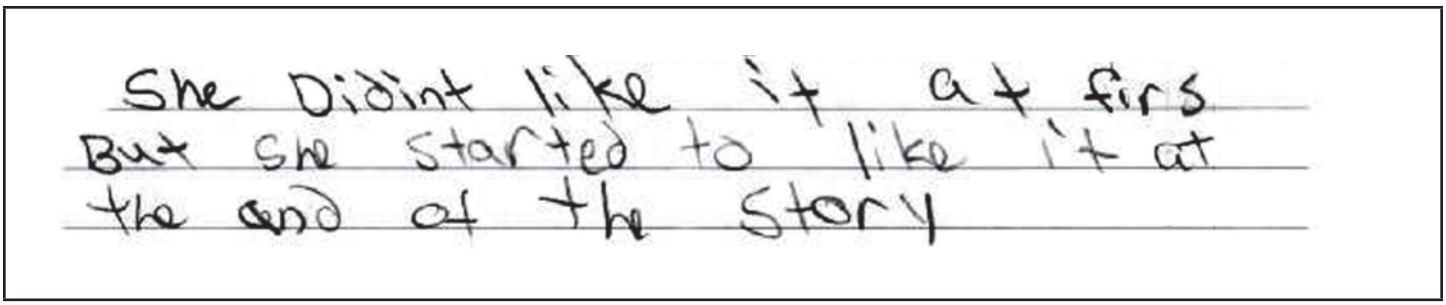
Example of Score Point 3

Marissa's feelings change throughout the passage here are the ways. At first she was angery that her parents, her, and her little brother were moving. Next she still didn't like it but she knew she would have to accept it. Then She saw the sea gulls and that made her a little more happy and content. Finaly She started to think of Utah as home when her dad told her about the seagulls. Those are the ways Marissas feelings changed throught the passage.

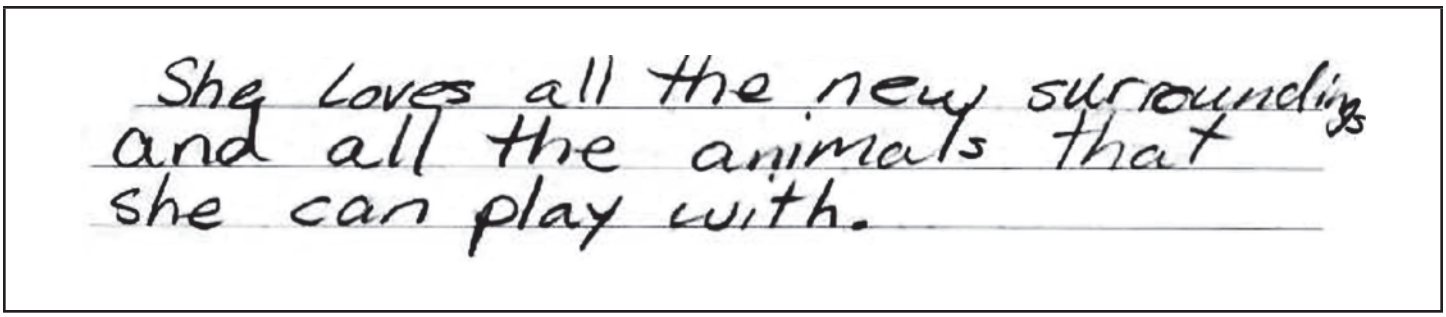
Example of Score Point 2

When Marissa moves west, she thinks there won't be anything good about it. She misses the ocean and everything with it. Then, however, she wakes up the next morning and finds seagulls flying over her grandpas tractor. Next she feels that this new home might not be so different from the old one.

Example of Score Point 1



Example of Score Point 0



Mathematics Directions for Spring CRT

This Mathematics test contains three test sessions. Mark or write your answers in the Answer Booklet. Use a pencil to mark or write your answers.

This test includes three types of questions: multiple-choice, short-answer, and constructed-response questions.

For the multiple-choice questions, you will be given four answer choices—A, B, C, and D. You are to choose the correct answer from the four choices. Each question has only one answer. After you have chosen the correct answer to a question, find the question number in your Answer Booklet and completely fill in the circle for the answer you chose. Be sure the question number in the Answer Booklet matches the question number in the Test Booklet. The example below shows how to completely fill in the circle.

CORRECT MARK	INCORRECT MARKS
●	❍ ⊙ ◘ ⊘

If you decide to change your answer to a question, erase the wrong mark completely before filling in the circle of the new answer. Be sure you have only one answer marked for each question. **If two circles are bubbled in for the same question, that question will be scored as incorrect.**

If you are having difficulty answering a question, skip the question and come back to it later. Make sure you skip the circle for the question in your Answer Booklet.

For the other types of questions in the Test Booklet, you will be asked to write your answers in the box provided. Read the question carefully. If a question asks you to explain your answer or to show your work, be sure to do so.

You may make notes or use highlighters in your Test Booklet, but you must bubble or write your final answers in your Answer Booklet. **Do not make any stray or unnecessary marks in your Answer Booklet.**

Let's work through a sample question together to be sure you understand the directions.

Sample Question

1. What is the capital of Montana?
   A. Browning
   B. Glendive
   C. Helena
   D. Missoula

Mathematics (No Calculator)

1. A company has 13 empty water towers. Each tower can hold up to 984 gallons of water. How many gallons of water will it take to completely fill all of the empty towers?

   A. 12,582 gallons
   B. 12,592 gallons
   C. 12,782 gallons
   D. 12,792 gallons

2. The owner of a pet store orders dog food using the chart shown below.

Prices of Dog Food

Size of Bag	Dog Food Weight (in pounds)
Small	10.25
Medium	18.75
Large	37.50

   The owner ordered 2 small bags, 4 medium bags, and 1 large bag. How many pounds of dog food did the owner order in all?

   A. 133 pounds
   B. 129 pounds
   C. 99.25 pounds
   D. 65.50 pounds

3. Abby is cutting a strip of ribbon $\frac{1}{4}$ inch wide from a strip of ribbon $\frac{5}{6}$ inch wide. What will be the width of the leftover strip of ribbon?

   A. $\frac{13}{24}$ inch
   B. $\frac{7}{12}$ inch
   C. $\frac{4}{6}$ inch
   D. $1\frac{1}{12}$ inches

4. Which set of numbers is ordered from least to greatest?

   A. $\frac{24}{10}$, $2\frac{6}{8}$, 2.3
   B. $2\frac{6}{8}$, 2.3, $\frac{24}{10}$
   C. 2.3, $2\frac{6}{8}$, $\frac{24}{10}$
   D. 2.3, $\frac{24}{10}$, $2\frac{6}{8}$

5. Study the addition problem below.

$$\frac{3}{4} + \frac{5}{2} = ?$$

Which statement is true about the sum?

A. It will be greater than 3 and less than 4.
B. It will be greater than 0 and less than 1.
C. It will be less than or equal to 3.
D. It will be greater than or equal to 4.

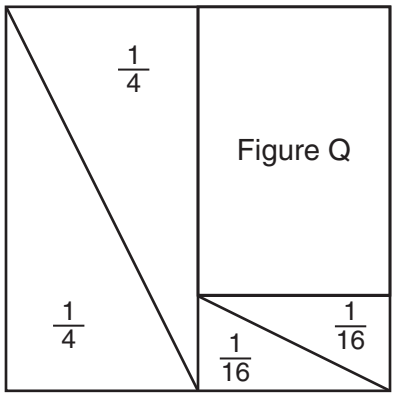
6. Compute:

0.23×0.04

7. What is the value of x in the equation below?

$3x = 24$

8. Ms. Garner divided a square into two large triangles, two small triangles, and one rectangle, as shown below. The area of each large triangle is $\frac{1}{4}$ the area of the entire square. The area of each small triangle is $\frac{1}{16}$ the area of the entire square.



a. The sum of the fractions for all of the shapes is 1. What fraction of the area of the square is Figure Q? Show your work or explain how you found your answer.

b. The area of the square is 32 square inches. What is the area, in square inches, of Figure Q? Show your work or explain how you found your answer.

Scoring Guide

Score	Description
4	4 points
3	3 points
2	2 points
1	1 point or Student shows minimal understanding of fractional computation without any computational errors.
0	Response is incorrect or contains some correct work that is irrelevant to the skill or concept being measured.
Blank	No response.

Scoring Notes

Part a: 2 points correct answer, $\frac{3}{8}$ **or equivalent**, with appropriate work shown or explanation given

OR

1 point correct answer without appropriate work shown or explanation given

or

correct strategy with incorrect or missing answer

Part b: 2 points correct answer, **12** (square inches), or correct answer based on an incorrect answer in part a, with appropriate work shown or explanation given

OR

1 point correct answer without appropriate work shown or explanation given

or

correct strategy with an incorrect or missing answer

Note: If student has incorrect units in the answer, do not award a 4-score. Otherwise, do not penalize.

Sample Responses:

a. First, I added $\frac{1}{4} + \frac{1}{4}$ and got $\frac{2}{4}$, which equals $\frac{1}{2}$. Then, I added $\frac{1}{16} + \frac{1}{16}$ and got $\frac{2}{16}$, which equals $\frac{1}{8}$. Then, I added $\frac{1}{2} + \frac{1}{8} = \frac{5}{8}$. Since I know the sum of all shapes in the square is equal to 1, I then subtracted $1 - \frac{5}{8} = \frac{3}{8}$. So, Figure Q is equal to $\frac{3}{8}$ of the entire square.

OR

$1 - 2\left(\frac{1}{4}\right) - 2\left(\frac{1}{16}\right) = 1 - \frac{1}{2} - \frac{1}{8} = \frac{3}{8}$

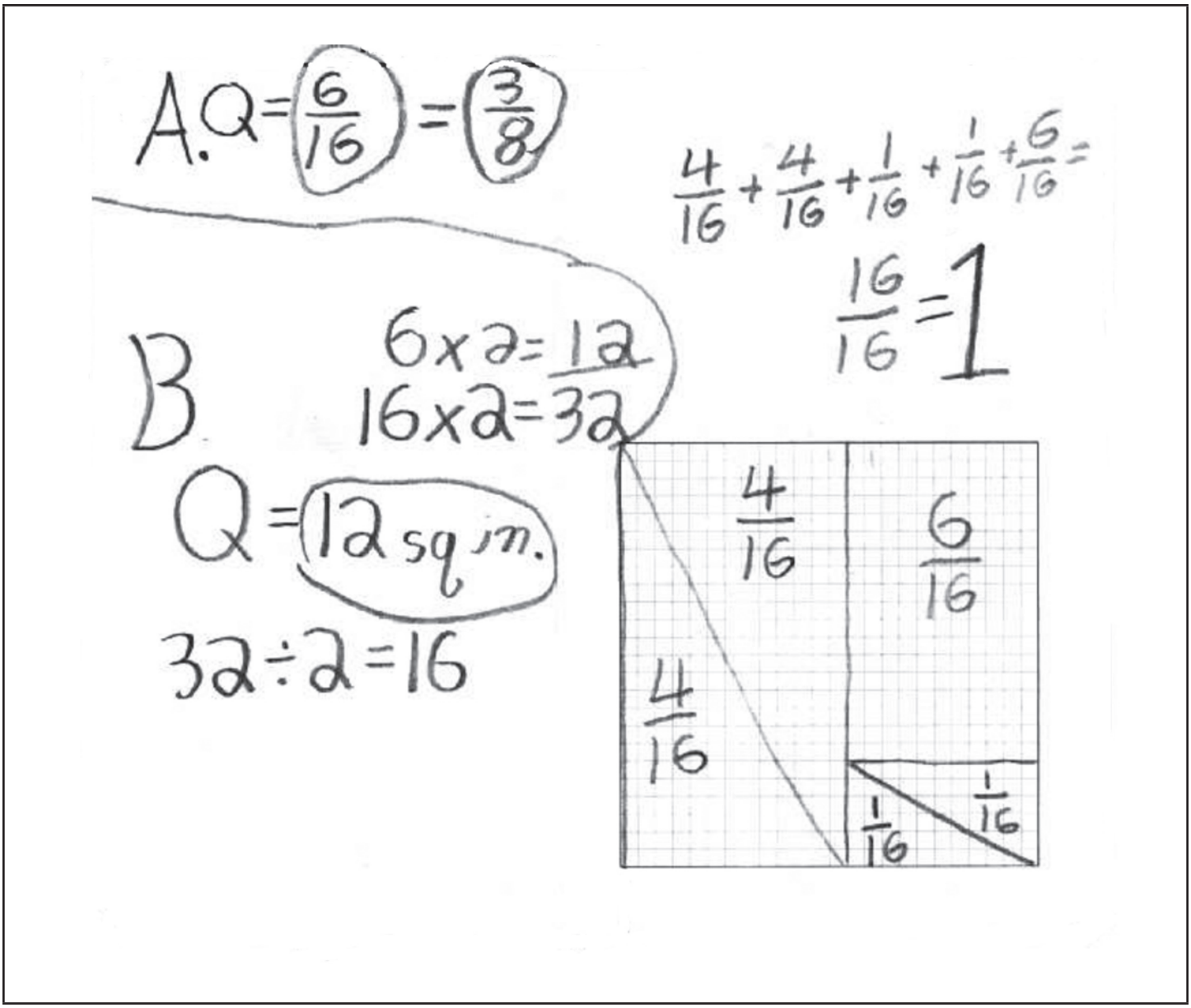
b. First, I knew that Figure Q was $\frac{3}{8}$ of the entire square, so I multiplied $\frac{3}{8}$ by 32 to get 12.

OR

$\frac{3}{8}(32) = 12$

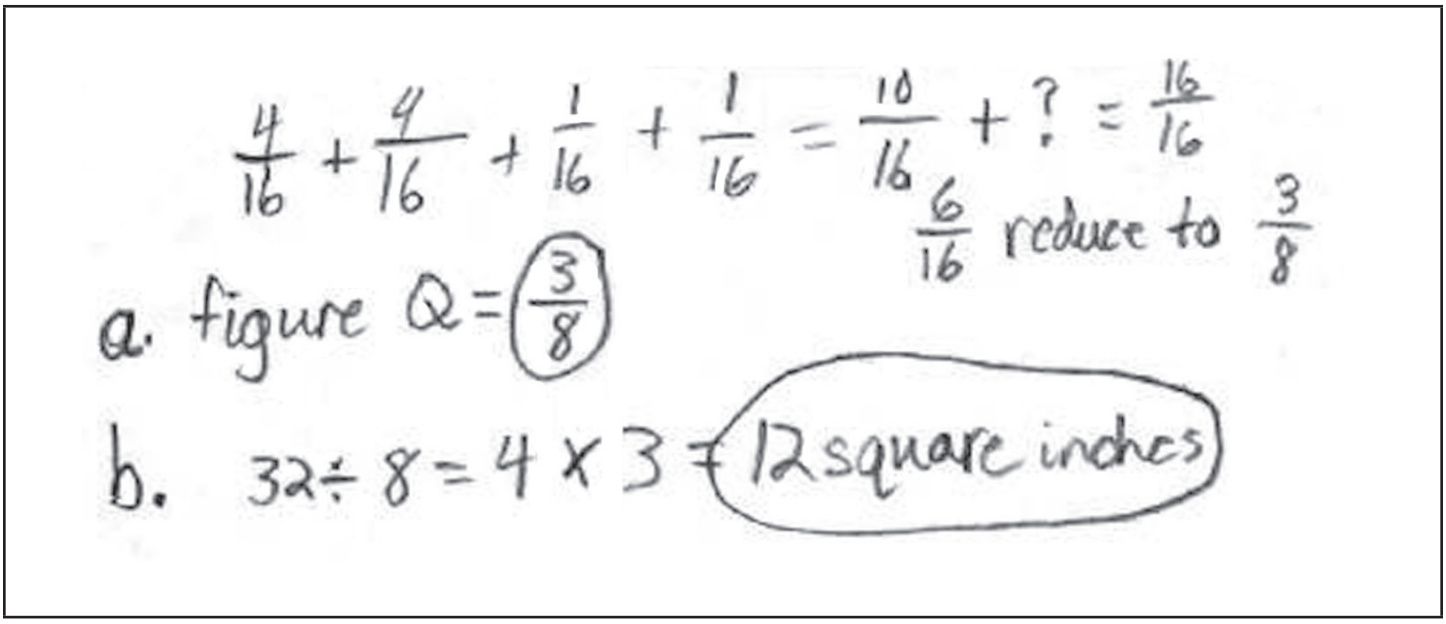
Example of Score Point 4

Sample 1



Example of Score Point 4

Sample 2



Example of Score Point 3

Sample 1

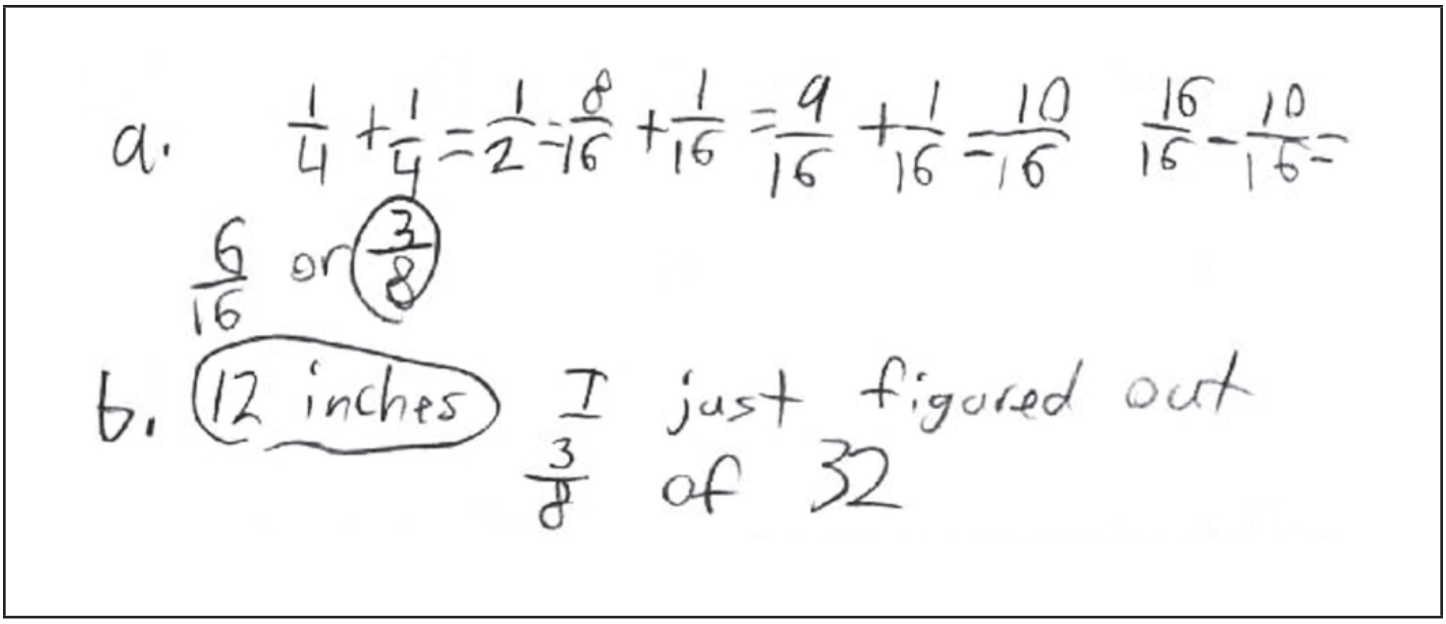
a. 1/4 + 1/4 = 2/8 1/16 + 1/16 = 2/16 = 1/8

2/8 + 1/8 = 3/8 8/8 - 3/8 = 5/8

b. What is 5/8 of 32? 5/8 = 20/32. That means figure Q is 20 square inches.

Example of Score Point 3

Sample 2



Example of Score Point 2

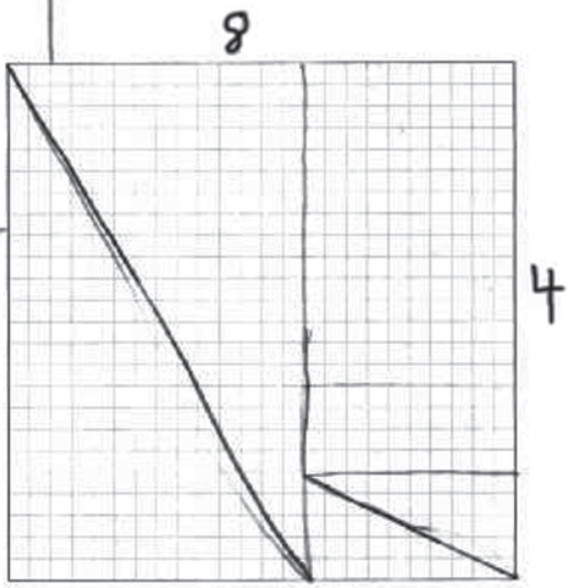
Sample 1

a. Know: all fractions = 1
large tri. = $\frac{1}{4}$ the area
small tri = $\frac{1}{16}$ the area

Find: What fraction of the area of the square is Figure Q?

Solution: $\frac{1}{4} = \frac{4}{16}$ $\frac{8}{16}$
$\frac{1}{4} = \frac{4}{16}$ $-\frac{2}{16}$
$\frac{8}{16}$ $\frac{6}{16} = \frac{3}{8}$

Answer: $\frac{3}{8}$ is figure Q.



B. Know: square = $32 in^2$

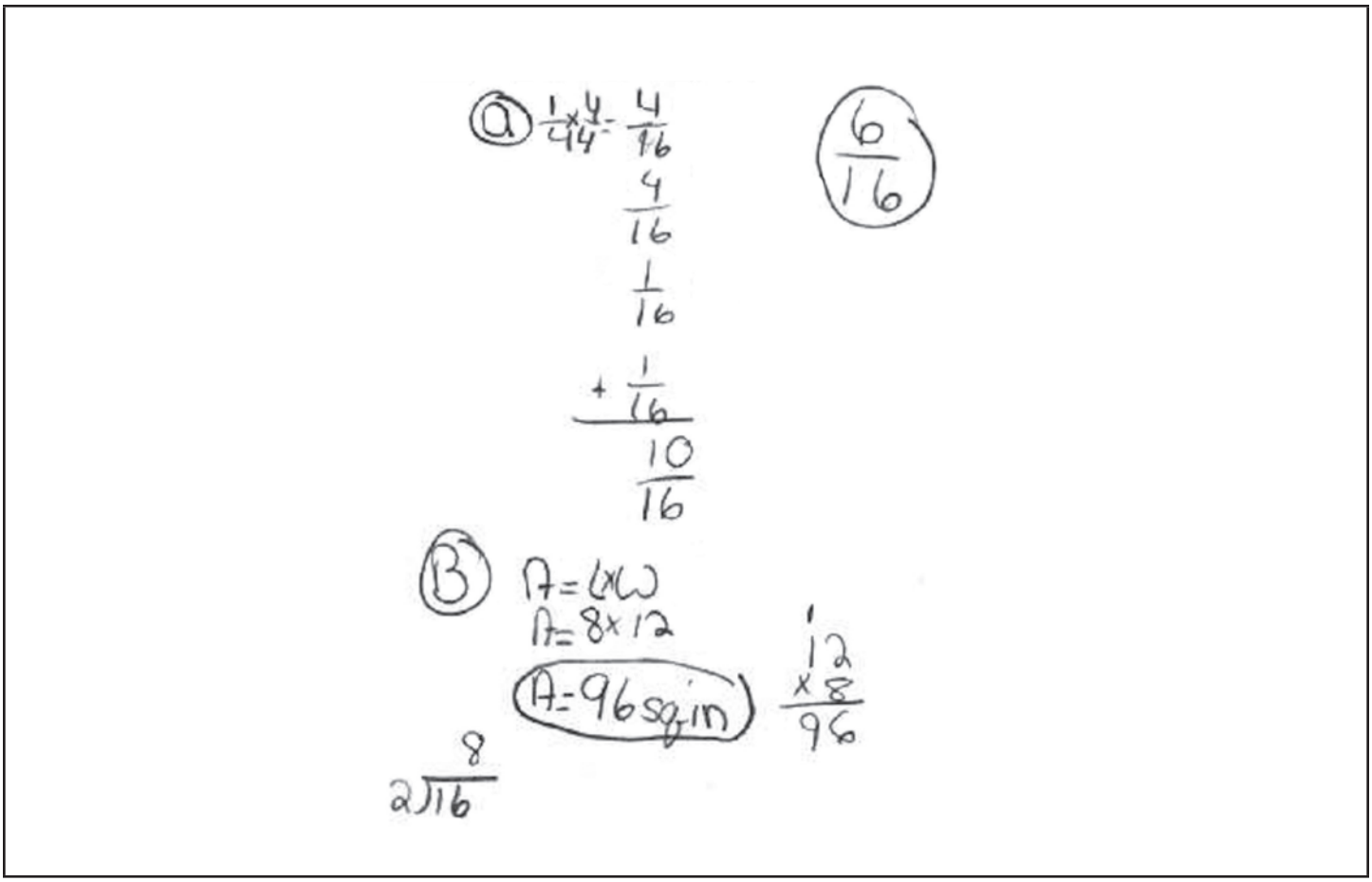
Find: What is the area, in square inches, of figure Q?

Solution: $2\overline{)32}^{16}$ $15\frac{16}{16} -$
-2 $\frac{2}{16}$
12
$15\frac{14}{16} = \frac{7}{8}$

Answer: $16 in^2$ $15\frac{7}{8} = 16$

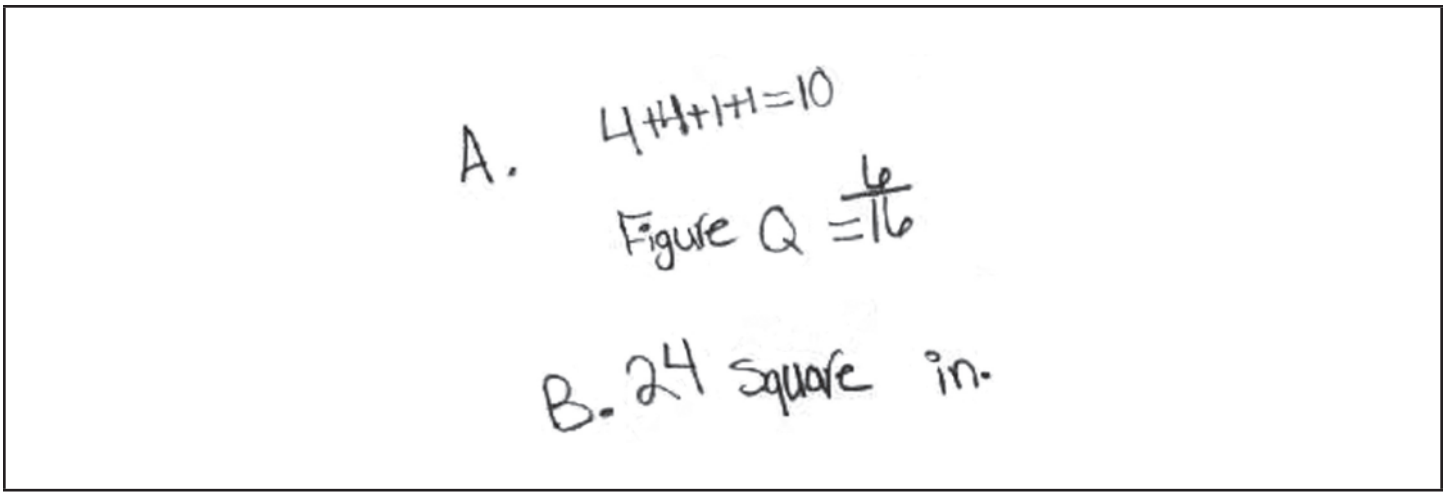
Example of Score Point 2

Sample 2



Example of Score Point 1

Sample 1



Example of Score Point 1

Sample 2

a. I found my answer by:

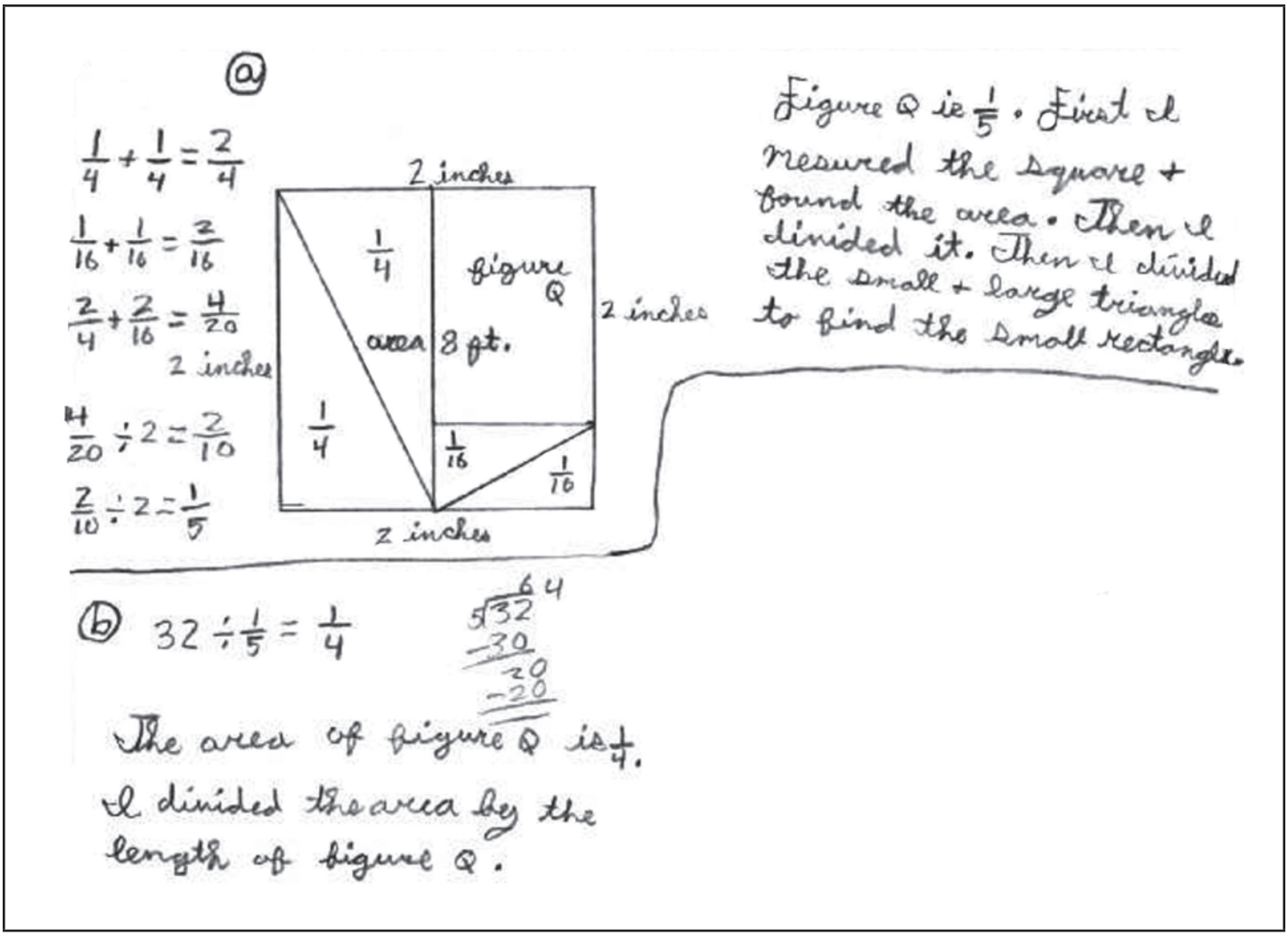
1/4 + 1/4 + 1/16 + 1/16 =

4/16 4/16 + 1/16 + 1/16 = 10/16 = 5/8

b. ?

Example of Score Point 0

Sample 1



Example of Score Point 0

Sample 2

A. $4 \times 4 = 16$

$Q = 16$

B. $\sqrt[8]{32}$ 8^2 in

9. Glenda drew a design that looks the same when it is rotated (turned) 90° clockwise. Which design could she have drawn?

A. 

B. 

C. 

D. 

10. Michael rode his bike for 12.5 miles. He rode at a rate of 5 miles per hour. How many hours did Michael ride his bike?

A. 2.5 hours
B. 7.5 hours
C. 17.5 hours
D. 62.5 hours

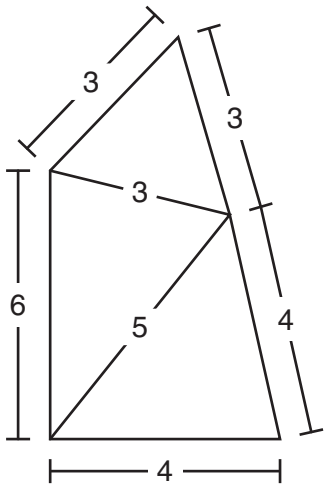
11. The students in a science class recorded the percentages of calcium found in different apple leaves. Their data are below.

2.4 1.4 1.5 1.7 1.4 2.3 1.1 1.4 2.1

Based on the data, what is the mean (average) percentage of calcium found in apple leaves?

A. 1.3
B. 1.4
C. 1.5
D. 1.7

12. Emma made the shape shown below using three triangles.

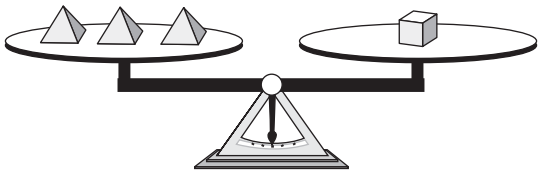


How many **scalene** triangles did Emma use?

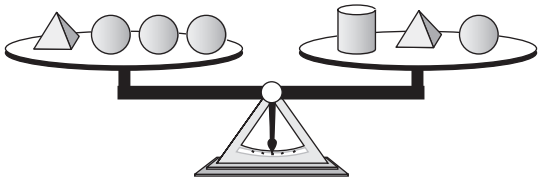
A. 0
B. 1
C. 2
D. 3

13. The three scales shown below are balanced.

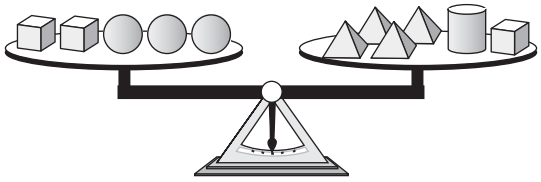
- Each  weighs the same.
- Each  weighs the same.
- Each  weighs the same.
- Each  weighs the same.



Scale 1

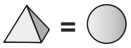


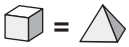
Scale 2

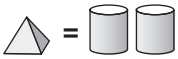


Scale 3

Which equation is true?

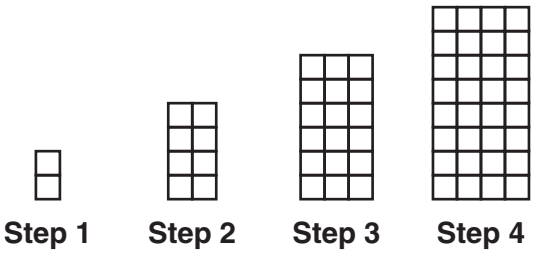
A. 

B. 

C. 

D. 

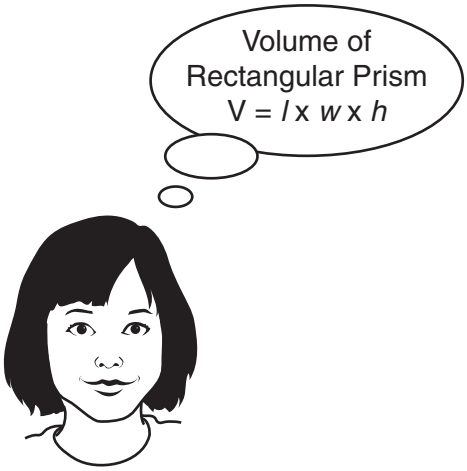
14. Dillon made the pattern below using tiles.



Based on the pattern, how many tiles will be in **Step 6** of the pattern?

A. 44
B. 50
C. 60
D. 72

15. Carla is making a sandbox in the shape of a rectangular prism. The sandbox has a length of 40 inches, a width of 60 inches, and a height of 6 inches.



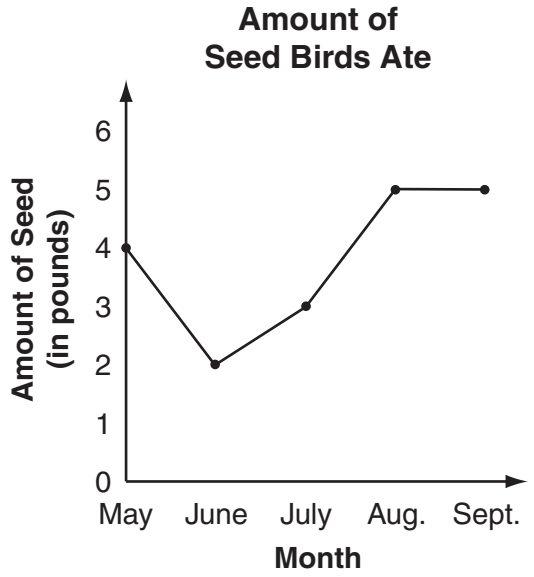
How much sand is needed to fill the sandbox?

A. 14,400 cubic inches
B. 14,400 square inches
C. 6,000 cubic inches
D. 6,000 square inches

16. In the Kootenai National Forest, a quaking aspen tree has a circumference of 94.2 inches. What is the diameter of the tree? (Use 3.14 for π.)

A. 15 inches
B. 25 inches
C. 30 inches
D. 60 inches

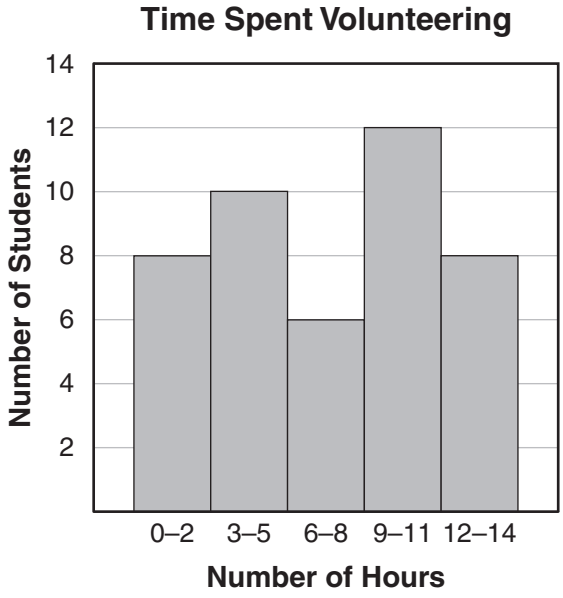
17. Kristen made a bird feeder. The graph below shows the number of pounds of seeds the birds ate for five months.



Between which two months did the number of pounds of seeds the birds ate increase the **most**?

A. May and June
B. June and July
C. July and August
D. August and September

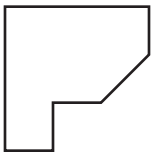
18. Justin used the histogram below to show the number of hours his classmates volunteered for a school cleanup project.



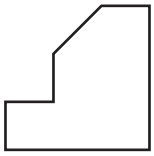
Which statement is **true** about the information in the histogram?

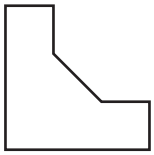
A. There were exactly 18 students who volunteered 5 or fewer hours.
B. There were exactly 12 students who volunteered 9 or more hours.
C. There were exactly 24 students who volunteered 6 or fewer hours.
D. There were exactly 26 students who volunteered 8 or more hours.

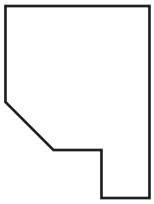
19. Steven drew the shape shown below.

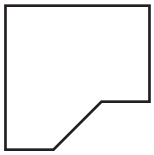


Which shape is congruent with Steven's shape?

A. 

B. 

C. 

D. 

20. Margaret wants to attend a book sale. The admission fee is \$5 and each book costs \$2. Which expression can be used to find the total amount of money Margaret can spend at the book sale if she buys b books?

A. $5 + 2b$

B. $10b$

C. $5b + 2$

D. $(5 + 2)b$

21. Sam made a model of a submarine using the scale below.

2 inches = 10 feet

Sam's model is 8 inches long. What is the length of the actual submarine?

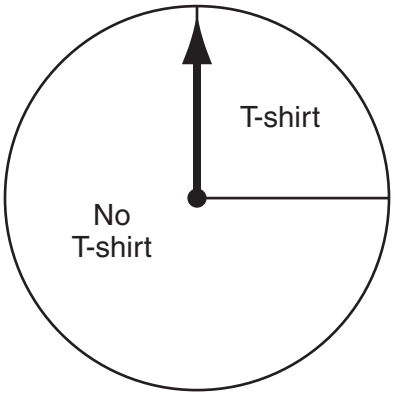
A. 16 feet

B. 18 feet

C. 40 feet

D. 80 feet

22. The students at Lincoln School sold 900 tickets to the school carnival. Each person that bought a ticket will spin the arrow on the spinner shown below for a chance to win a T-shirt.



Based on this information, which is the **best** prediction for the number of people who will win a T-shirt?

A. 225
B. 300
C. 450
D. 675

23. Which expression is the prime factorization of 300?

A. 2×150
B. $2 \times 2 \times 75$
C. $2 \times 2 \times 5 \times 15$
D. $2 \times 2 \times 5 \times 5 \times 3$

24. Helen is decorating her living room. She wants to paint the room yellow and blue and then add a border around the ceiling. She may choose from the list below.

- 3 shades of yellow paint
- 2 shades of blue paint
- 4 borders

How many different ways can Helen decorate the room using 1 shade of yellow paint, 1 shade of blue paint, and 1 border?

A. 6
B. 9
C. 12
D. 24

25. Jamie borrowed $250 from his parents. The table below shows the amount of money he still owes his parents after he makes 3 payments.

Jamie's Payment Plan

Number of Payments	Amount Jamie Owes (in $)
0	250
1	235
2	220
3	205

Jamie continues to make payments of the same amount. After how many payments will he owe his parents exactly $100?

A. 15

B. 11

C. 10

D. 7

26. Which figure is **not** always a parallelogram?

A. trapezoid

B. rhombus

C. rectangle

D. square

27. Clare is designing a table in the shape of a hexagon with three sides that are 18 inches long and three sides that are l inches long. The expression below represents the perimeter of the table.

$$(3 \times l) + (3 \times 18)$$

What is the perimeter, in inches, of the table when l equals 24?

A. 57

B. 72

C. 126

D. 162

28. Vernon sells his handmade picnic tables for \$40 more than the cost of the lumber needed to make each one.

L = cost of lumber C = selling price for each table

Which equation can be used to find the selling price for each table?

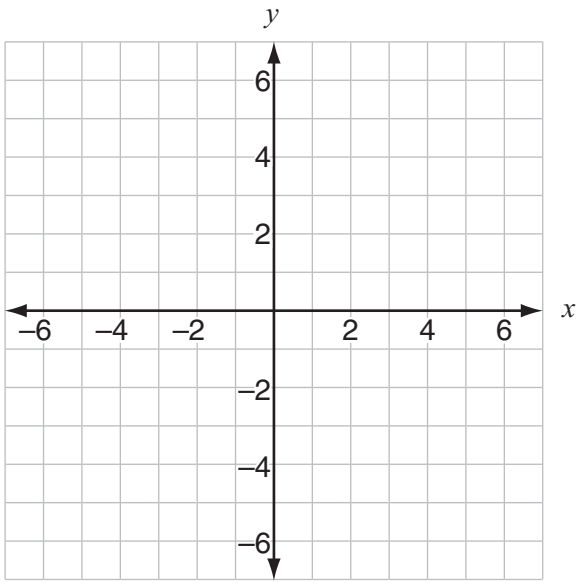
A. $C = L - 40$

B. $C \times 40 = L$

C. $C + 40 = L$

D. $C = 40 + L$

29. You may use the coordinate grid below to help you answer this question.



Ethan plotted the vertices of rectangle $WXYZ$ on a coordinate grid.

- The coordinates of vertex W are (–2, 4).
- The coordinates of vertex X are (4, 4).
- The coordinates of vertex Y are (4, 1).

Which coordinates could be the location of vertex Z on this rectangle?

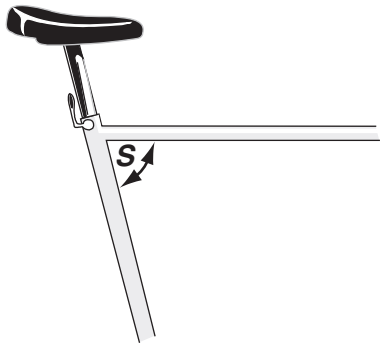
A. (2, –1)

B. (–2, 1)

C. (–1, 2)

D. (1, –2)

30. Use your protractor and the diagram below to answer this question.



What is the measure of angle *S* to the nearest degree?

A. 76°

B. 84°

C. 104°

D. 116°

Acknowledgments

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